Two pulls that pack a punch

FINE DETAILS CARRY
## A MESSAGE OF MASTERY

BY ROSS DAY

The overall shape of a piece of furniture is primary to the impression it makes, but so much also depends on the details. Architect Mies van der Rohe, whose buildings were beautifully made right down to the doorknobs, liked the phrase "God is in the details." But many furniture makers, anxiously searching for just the right handles at the end of a project, can relate to its corollary, "the devil is in the details."

My mentor, James Krenov, believed that with a successful piece of furniture the closer you look, the more interesting discoveries you make. In this article, I'll describe how to make two pulls that should repay close inspection and finish your piece with a flourish.

Both these pulls can be made in a variety of sizes, and can be used horizontally for drawers or vertically for doors. I often graduate the size of the pulls on a single piece of furniture to match the different sizes

Single-bar pull

Tenon

9/16 in.

Post

7/16 in.

1/4 in. dia.

3/8 in.

1½ in.

Bar

Plug, 1/16 in. square

3/4 in.

3 in.

3/32 in.

5/16 in.

1/4 in.

7/32 in.

1/16 in.

3/8 in.

Scoop detail
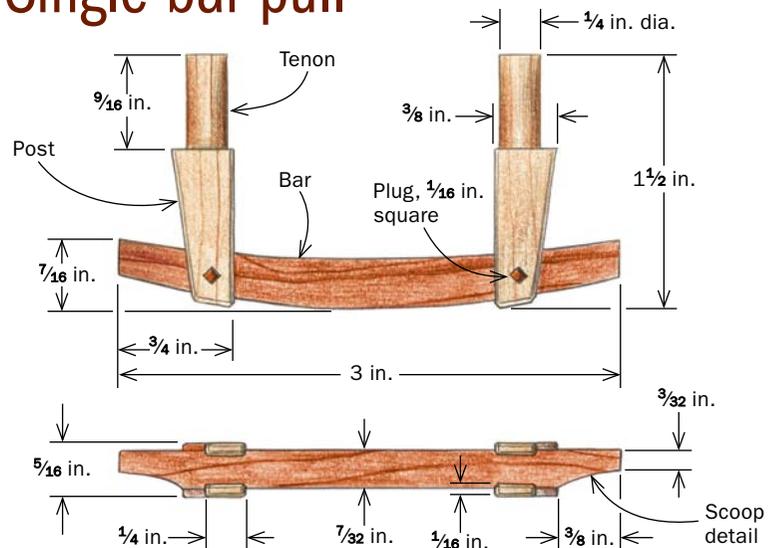
BEGIN THE BARS

Tiny dadoes. *With the bar blanks still milled square, use a crosscut sled with a stop block to cut the pairs of dadoes at both ends (left). Use a chisel to chop the outside shoulder of the dado to match the taper of the post (above left). Then carefully bandsaw the inner curve (above right), and fair the curve with files and sandpaper.*

Photos: Jonathan Binzen; drawings: John Tetreault

POST PRODUCTION

One stick, many posts. *Day mills a long workpiece that will yield a batch of posts. He roughs out the tenons on the posts by dadoing across all four sides.*

of the drawers or doors. I've also scaled these pulls all the way up and used them on interior and exterior entry doors.

The single-bar pull, made here in cherry and cocobolo and sized for a small drawer, is made with true tenons that join the posts to the drawer front. Alternately, you can join the pull to the piece of furniture with epoxied metal pins, as I do with the double-bar pull.

In both these pulls the bars are curved and the posts are tapered to add visual interest. On the single-bar pull, the bar is also scooped out at the ends on one face; these scoops face downward when the pull is used for drawers; when it's used for doors, the scoops face outward—toward the hinges.

Made at this scale, both these pulls involve shaping and joining very small parts. For safety, be sure to use zero-clearance throat plates on your tablesaw

Slot for the bar. *After crosscutting the ends of the workpiece at an 85° angle, use an angled guide block to cut the slot. Then cut a post blank from each end of the workpiece and repeat the process.*

Tenoning by eye. *Use a circle template to lay out the tenon, then chop it to an octagon with a chisel and file it round.*

Fitting the posts to the bar. *Using a block plane inverted in his vise as a finger-powered jointer, Day angles the outer face of the post to fit the dadoes in the bar.*

JOINING POSTS AND BARS
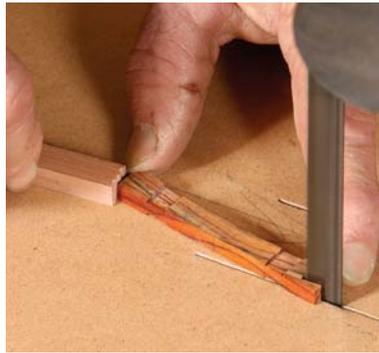
Make the convex cut. *Once the posts have been fitted to the bar, saw the top edge of the bar to its convex shape. A piece of ¼-in. MDF creates a zero-clearance table surface.*

Scoop with the sander. *Day uses his belt sander, clamped on its side and fitted with a shopmade "table," to shape the scooped sections at both ends of the bar.*

and bandsaw and use push sticks whenever possible, making custom sticks as necessary.

Making the single-bar pull

To make the posts, I mill up a long workpiece that will yield multiple blanks. After laying out the posts, I use a dado blade on the tablesaw to rough out the tenons. Then I crosscut both ends of the workpiece at 85° and cut a slot in each end. The posts at each end are then ready to be cut free. Since the tablesaw is set up to cut the slots, I do the crosscut at the bandsaw or by hand.

Once I've cut all the posts, I shape their tenons round. I put the post in a jeweler's vise, draw a circle on the end, chisel the tenon to an octagon, then file the tenon round. I use a scrap with a test hole to check my progress. When I've shaped the bar and fitted the posts to it, I carefully chamfer all the exposed edges of the

Drilling for diamonds. *Before chiseling out the diamond-shaped mortise for the plug, drill a ¹⁄₁₆-in.-dia. hole through the post and into the bar.*

Follow with the chisel. *Use a ¹⁄₁₆-in. chisel to chop the miniature mortises. To remove waste during chiseling, Day redrills with the ¹⁄₁₆-in. bit.*


Pegged. *Day clinches the joint with tiny pegs. He chamfers the show end of the peg before cutting it to length from a long, tablesawn strip.*

Double-bar pull

Adjust the shoulders. *After dadoing the inside face of the bars at the tablesaw, use a chisel to angle one shoulder to match the post.*

Outside face tapers

Brass pin, 1/8 in. dia.

Aluminum pin, 1/16 in. dia.

All edges chamfered

3/8 in.

15/16 in.

7/16 in.

3/4 in.

4 5/8 in.

3/8 in.

5/16 in.

5/8 in.

1/4 in.

1/8 in.
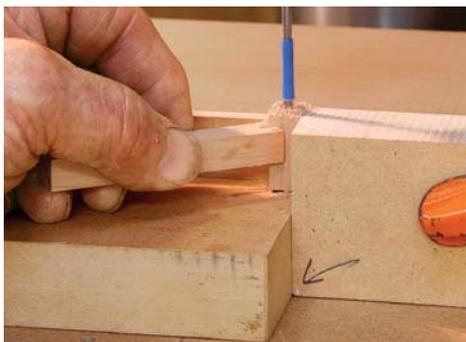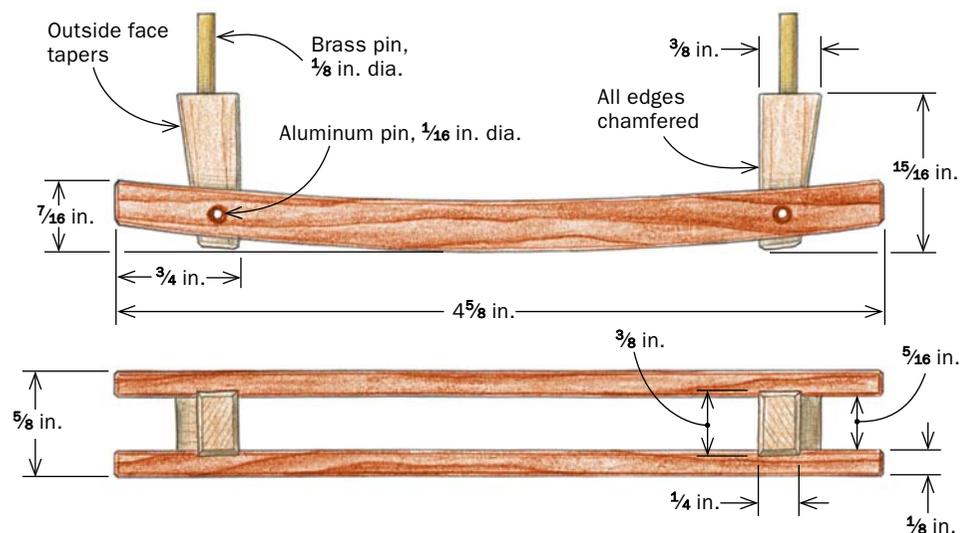
Hold still while I drill. *A stepped fence and a stick with a V-shaped notch hold the post for drilling. The hole accepts the metal pin that will be epoxied in and takes the place of a tenon.*

Drill straight through. *With the pull dry-fitted and with a sacrificial table to back up the cut, drill right through both bars and the post with a 1/16-in.-dia. bit.*

Quick chamfer. *A countersink bit in the drill press makes a clean, decorative chamfer at the mouth of the pin hole.*

posts and pre-finish the posts and bar before glue-up. To create the diamond plugs, I make a long strip 1/16 in. by 1/16 in. I chamfer the ends of the strip with a file, then cut a plug from each end with a small handsaw. Before tapping the plug in place, I chamfer the sawn ends as well.

A note on the double-bar pull

The posts for the double-bar pull are made in the same way as for the single-bar pull, but without the true tenons. I make the pin tenons from 1/8-in.-dia. brass rod. I handsaw each pin to length and chamfer both ends with a file. After drilling a hole in the bottom of the post, I use five-minute epoxy to glue the pin in place. A small bamboo skewer works well to spread the epoxy inside the hole.

For this pull I used aluminum pins instead of wooden pegs to clinch the bars to the posts, and I drilled through-holes instead of stopped ones. To give the pins a finished look, I used a countersink bit to chamfer the pin hole and I chamfered the ends of the pins. □

Ross Day makes furniture in Poulsbo, Wash.

Glue, assemble, tap. *After spreading glue on the dadoes, assemble the parts and hammer in the pins. Use a spacer beneath the pin to keep the pull stable.*